



Fig.1

1 (BgII)	
CCGGCGCAAACGGCGGACGCTGCTGTTAGCCCCGCTTGAAACAATGC	47
-35 -10	
CGTCTGAACGCCACTTCAGACGGCATTTTTATAATAAGGCGCTGTCCTAGATAACTAGGG	107
S.D.	
AAATTCAANTTAAGTTAGAATTATCCCTATGAGAAAAAGCCGTCTAAGCCGGTATAAACA	167
M R K S R L S R Y K Q	
AAATAAACICATTGAACTGTTTGTGCGCAGGCGTAAGTCAAGAACAGCAGCAGAGCCTGA	227
N K L I E L F V A G V T A R T A A E P D	
CAGCATTGTTTATACGGATTGTTATCGTCGCTATGATGATTGGATGCGGGCGAATTTAG	287
S I V Y T D C Y R R Y D V L D A G E F S	
CCATTTCCGTATCAATCACAGCACACATTTTGCCGAACGACAAAACCATATTAATGGAAT	347
H F R I N H S T H F A E R Q N H I N G I	
TGGGAACTTTTGGAACCGGGCAAACGTCATTTACGCAAGTTTGACGGCATTCCCAAAGA	407
G N F W N R A K R H L R K F D G I P K E	
GCATTTTGAGCCGTATTTAAAGGAGTGCGAACGGCGTTTTTAACAACAGTGAGATAAAAG	467
H F E P Y L K E C E R R F *	
-35	
TTCTGTTCATTTTTAAAACAATTAGTAAAATCGAGTTTATCCTAGTTGTCCAGGACGGC	527
-10 S.D.	
CCCTAATTTATTTACAATTTTGATACAATTGTGTTTTTCATCAAAGGAGAAAATCTATGCG	587
M R	
GGCACGGCTGCTGATACCTATTCCTTTTTTCGGTTTTTATTTTATCCGCTGCGGGACACT	647
A R L L I P I L F S V F I L S A C G T L	
GACAGGTATTCCATCGCATGGCGGAGGCAAACGCTTCGCGGTGAACAAGAACTTGTGGC	707
T G I P S H G G G K R F A V E Q E L V A	
CGCTTCTGCCAGAGCTGCCGTTAAAGACATGGATTTACAGGCATTACACGGACGAAAAGT	767
A S A R A A V K D M D L Q A L H G R K V	
TGCATTGTACATTGCAACTATGGGCGACCAAGGTCAGGCAGTTTGACAGGGGGTTCGCTA	827
A L Y I A T M G D Q G S G S L T G G R Y	
CTCCATTGATGCACGTATTCGCGGCGAATACATAAACAGCCCTGCGGTCCGCACCGATTA	887
S I D A L I R G E Y I N S P A V R T D Y	
CACCTATCCGCGTTACGAAACCACCGCTGAAACAACATCAGGCGGTTTGACGGGTTTAAAC	947
T Y P R Y E T T A E T T S G G L T G L T	
CACCTCTTTATCTACACTTAATGCCCCTGCACTCTCGCGCACCCAATCAGACGGTAGCGG	1007
T S L S T L N A P A L S R T Q S D G S G	

Fig.2A

AAGTAGGAGCAGTCTGGGCTTAAATATTGGCCGGATGGGGGATTATCGAAATGAAACCTT 1067  
 S R S S L G L N I G G M G D Y R N E T L  
 GACCACCAACCCGCGGCACACTGGCCTTTCTTTCCCACTTGGTACAGACCGTATTTTTCCT 1127  
 T T N P R D T A F L S H L V Q T V F F L  
 GCGCGGCATAGACGTGTGTTTCTCTGCAATGCCGATACAGATGTGTTTATTAACATCGA 1187  
 R G I D V V S P A N A D T D V F I N I D  
 CGTATTCCGAACGATACGCAACAGAACCGAATGCACCTATACAATGCCGAAACACTGAA 1247  
 V F G T I R N R T E M H L Y N A E T L K  
 AGCCCAAACAAAACCTGGAATATTTGCGAGTAGACAGAACCAATAAAAAATTGCTCATCAA 1307  
 A Q T K L E Y F A V D R T N K K L L I K  
 ACCCAAACCAATGCGTTTGAAGCTGCCTATAAAGAAAATTACGCATTGTGGATGGGGCC 1367  
 P K T N A F E A A Y K E N Y A L W M G P  
 GTATAAAGTAAGCAAAGGAATCAAACCGACGGAAGGATTAATGGTTCGATTCTCCGATAT 1427  
 Y K V S K G I K P T E G L M V D F S D I  
 CCGGCCATACGGCAATCATACGGGTAACTCCGCCCCATCCGTAGAGGCTGATAACAGTCA 1487  
 R P Y G N H T G N S A P S V E A D N S H  
 TGAGGGGTATGGATACAGCGATGAAGCAGTGGGACAACATAGACAAGGGCAACCTTGATT 1547  
 E G Y G Y S D E A V R Q H R Q G Q P \*  
 S.D.  
 CACACTGCCATAACCGCTTGCTGCCAAGGAAAACAAAATGAATTGCTATTCAAAAATT 1607  
 M N L P I Q K F  
 CATGATGCTGTGTTGCGAGCGGCAATATCGTTGCTGCAAATCCCCATTAGTCATGCGAACGG 1667  
 M M L F A A A I S L L Q I P I S H A N G  
 TTGATGCCCCGTTTGGCGGATGATATGCAGGCAAAACACTACGAACCGGGTGGCAAATA 1727  
 L D A R L R D D M Q A K H Y E P G G K Y  
 CCATCTGTTCGGTAATGCTCGCGGCAGTGTAAAAATCGGGTTTGGCGCGTCCAAACATT 1787  
 H L F G N A R G S V K N R V C A V Q T F  
 TGATGCAACTGCGGTGGGCCCCATACTGCCTATTACACACGAACGGACAGGGTTTGAAGG 1847  
 D A T A V G P I L P I T H E R T G F E G  
 CATTATCGGTTATGAAACCCATTTTTCAGGACACGGACACGAAGTACACAGTCCGTTTGA 1907  
 I I G Y E T H F S G H G H E V H S P F D  
 TAATCATGATTCAAAAAGCACTTCTGATTTTACGGGGGGGTAGACGGCGGTTTACCGT 1967  
 N H D S K S T S D F S G G V D G G F T V  
 TTACCAACTTCATCGGACAGGGTGGGAAATACATCCCGCAGACGGATATGACGGGCCCTCA 2027  
 Y Q L H R T G S E I H P A D G Y D G P Q  
 AGGCGGCGGTTATCCGGAACCAACAAGGGGCAAGGGATATATACAGCTACCATATCAAAGG 2087  
 G G G Y P E P Q G A R D I Y S Y H I K G  
 AACTTCAACCAAAACAAAGATAAACACTGTTCCGCAAGCCCCCTTTTTCAGACCGCTGGCT 2147  
 T S T K T K I N T V P Q A P F S D R W L

AAAAGAAAAATGCCGGTGCCCGCTTCGGGTTTTCTCAGCCGTGCCGGATGAAGCAGGAAAAC 2207  
 K E N A G A A S G F L S R A D E A G K L  
 GATATGGGAAAACGACCCCGATAAAAATTGGCGGGCTAACCGTATGGATGATATTCGCGG 2267  
 I W E N D P D K N W R A N R M D D I R G  
 CATCGTCCAAGGTGCGGTTAATCCTTTTTTAAACGGGTTTTTCAGGGATTGGGAGTTGGGGC 2327  
 I V Q G A V N P F L T G F Q G L G V G A  
 AATTACAGACAGTGGGTAAGCCCGGTAACCTATGCGGCAGCACGGAAAACCTTACAGGG 2387  
 I T D S A V S P V T Y A A A R K T L Q G  
 TATTACAAATTTAGGAAATTTAAGTCCGGAAGCACAACCTTGCCCGCCGAGCCTATTACA 2447  
 I H N L G N L S P E A Q L A A A S L L Q  
 GGACAGTGCCTTTGCGGTA AAAAGACGGCATCAATTCGCCCAGACAATGGGCTGATGCCCA 2507  
 D S A F A V K D G I N S A R Q W A D A H  
 PstI  
 TCCGAATATAACAGCAACAGCCCAAACCTGCCCTTGCCGTAGCAGAGGCTGCAGGTACGGT 2567  
 P N I T A T A Q T A L A V A E A A G T V  
 TTGGGGAGGTAAAAAAGTAGAACTTAACCCGACCAAATGGGATTGGGTAAAAAATACCGG 2627  
 W G G K K V E L N P T K W D W V K N T G  
 CTATGAAAAACCTGCTGCCCGACCTATGCAGACTGTAGACGGGGAAATGGCCGGGAAAAA 2687  
 Y E K P A A R P M Q T V D G E M A G K N  
 TAAGCCACCGAAACCAAGTACGCAGCAACACTCTACACACTCTGATAACAATATCGGCTT 2747  
 K P P K P S T Q Q H S T H S D N N I G L  
 ACCTGCCCCATATGTTAAACCTGATACATCTATTCTCCGACAGGAACAATTCAAGACCG 2807  
 P A P Y V K P D T S I S P T G T I Q D R  
 CATCAGATGGACAAAATCCAAGTTTCCTACTGAGAAATCTTTAAATGGACATTTCAAAGC 2867  
 I R W T K S K F P T E K S L N G H F K A  
 TCATGGAAAAGAATTTGGCGATATAACCATGGAAGACTACCAAAAAATGGCGTCTGATTT 2927  
 H G K E F G D I T I E D Y Q K M A S D L  
 GTTATCAAAACAGACATCGGACAAGATATTAGGTTATCAGACGGAACATAGACGAGTGG 2987  
 L S K Q T S D K I L G Y Q T E H R R V R  
 CTATGATATCAATAACAATATCTATGTTTGGCCAATCCAAAAACATTCAAAATCAAAAC 3047  
 Y D I N N N I Y V L A N P K T F K I K T  
 Eco RI  
 AATGTTTAAACCAAACCTTAGGAAAGGAGTATTATGATGGAGAAATTCAAAAAGACATGGG 3107  
 M F K P N L G K E Y Y D G E F K K D M G  
 AAATTGACGGAGAAATATGGCTACATTGTCCGTGTTGCGGAACCTGAAGTTATGGACTATG 3167  
 N \*  
 ATATCTGTGACGTTTGTGTCAGTGGCAAAATACAGGAGAACTAATATAGATGGTGGTCCTA 3227  
 HindIII  
 ATGAAATGACACTTGCGGAGGCGAAAGAAAGCTTACGCAAAAGGCTTACCAATCAGATAAA 3287

Fig.2C